

Clinicians' perceptions and the relevant computer-based information needs towards the practice of evidence based medicine

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Abstract

We conducted a survey among 100 clinicians in a university hospital to determine the clinician's attitudes and the relevant computer-based information needs towards the practice of evidence-based medicine in outpatient setting.

Introduction

The interest in evidence-based medicine in Japan has increased rapidly in recent years. However, little is known about clinicians' attitudes and their information needs towards the practice of evidence-based medicine. The objectives of the study are to determine the clinician's attitudes and the relevant computer-based information needs towards the practice of evidence-based medicine in outpatient setting.

Methods

In August 2000, we sent a questionnaire to 100 clinicians who were selected randomly from those working at Hokkaido University Hospital. The part of the questionnaire about clinicians' EBM attitudes was adopted from [1] with a few of revisions. In another part, we assessed their information needs in outpatient care, including the type and frequency of clinical problems met in outpatient care, the type and frequency of information resources used for resolving these clinical problems, and the expectations to information support functions of hospital information system. Most of data were analyzed using SPSS for windows 10.0J.

Results

Of the 100 questionnaires we sent out, we received 83 replies (83%).

1. Attitudes towards evidence based medicine

Most clinicians were welcoming towards the current promotion of evidence based medicine, and although their colleagues were perceived to be less welcoming. And most clinicians agree that practicing evidence-based medicine improved patient care and the literature retrieval was useful in their daily patient care. The median value for the estimated percentage of respondents' clinical practice that was evidence based was 68% and that for the estimated percentage of respondents' knowledge and skill about evidence based medicine 52%.

2. Information needs on outpatient practice

The mean frequency of the clinical problems met by clinicians in outpatient care was identified as 1.38 (0.1-5) times per 10 patients. The four types of clinical problems related to treatment, prognosis, causes and costs with high frequency were identified.

The result showed that Japanese-based information sources accounted for 35% \pm 22% and English-based sources did 65% \pm 22%. The mean percentage of the computer-based sources used by clinicians only accounted for 19.5%. About 50% clinicians used the clinical guideline 1-2 times per month at least and 25% clinicians never used the clinical guideline for the outpatient care. About 60% of clinicians used PubMed or Medline frequently as the computer-based information resources. The support functions of HIS including the patient-specific data, alerts, clinical guideline and links to Medline were expected by more than 60% of clinicians.

3. Statistical findings

The ANOVA test between the internal medicine group and the surgery group showed that the former group shared higher level of the opinions on welcoming the current promotion of evidence-based medicine than the latter ($p < 0.05$). The ANOVA tests showed that the clinicians in the group that almost did not use Japanese Central Medical Journal owned the higher level of opinions on that "the literature retrieval was useful in their daily patient care" ($P < 0.01$). And the clinicians in the group that used Medline frequently owned the higher level of the estimated percentage of their knowledge and skill about evidence based medicine ($P < 0.05$).

Conclusion

Most of clinicians welcome the current promotion of evidence-based medicine although the difference existed between internal medicine group and the surgery medicine group. Computer-based support towards the practice of evidence-based medicine in outpatient settings was not enough and Medline or PubMed was used more frequently by most of clinicians than the other computer-based sources. The clinicians expected the support functions of hospital information system should be expanded to meet their information needs on their busy outpatient practice.

References

- [1] A.McColl, H.Smith, P.White, J.Field. General practitioners' perceptions of the route to evidence based medicine: a questionnaire survey. BMJ, 1998;316: 361-5.